



Marked up Version of SEQUENCE LISTING section



SEQUENCE LISTING

<110> HUANG, QIHONG
REED, JOHN C.
DEVERAUX, QUINN L.
MAEDA, SUSUMU

<120> INHIBITOR OF APOPTOSIS PROTEINS AND NUCLEIC ACIDS AND
METHODS FOR MAKING AND USING THEM

<130> 087102/027 2537

<140> 10/041,859
<141> 2002-01-07

<150> 60/260,478
<151> 2001-01-08

<160> 27

<170> PatentIn Ver. 3.3

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<212> DNA
<213> Bombyx mori

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gca aaa atg cga cct ttc att ggt ccg ctc atg tta tcc tcg tgt gag Ala Lys Met Arg Pro Phe Ile Gly Pro Leu Met Leu Ser Ser Cys Glu	25 30 35	2849
tct tca acg aca tcc aca ctc ccg tca cct tcg tcg tca gct gat aaa Ser Ser Thr Thr Ser Leu Pro Ser Pro Ser Ser Ala Asp Lys	40 45 50 55	2897
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ccc gag gaa ctg gca gag gcc gga ttc ttc tat aca ggc caa ggt gac Pro Glu Glu Leu Ala Glu Ala Gly Phe Phe Tyr Thr Gly Gln Gly Asp	200 205 210 215	3377
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Ala	Arg	Tyr	Ser	Thr	Glu	Ala	Ala	Arg	Leu	Ala	Thr	Phe	Lys	Asp	Trp
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Gly	Glu	Lys	His	Leu	Asp	Asp	Ser	Lys	Ile	Cys	Lys	Ile	Cys	Tyr	Ser
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<220>
<223> Description of Artificial Sequence: Synthetic primer

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<222> (9)
<223> a, c, g or t

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<221> modified_base
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<223> a, c, g or t

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20

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<210> 4
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<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer

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<223> a, c, g or t

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<223> a, c, g or t

<400> 4
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17

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<210> 5
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<212> DNA
<213> Artificial Sequence

<220>
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18

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<210> 6
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<212> DNA
<213> Artificial Sequence

<220>
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<213> Artificial Sequence

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<210> 8
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<212> PRT
<213> Bombyx mori

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20 25 30

Asp Glu Val Cys Cys Ala Phe Cys Lys Val Glu Ile Met Arg Trp Val
35 40 45

Glu Gly Asp Asp Pro Ala Ala Asp His Arg Arg Trp Ala Pro Gln Cys
50 55 60

Pro Phe Val Glu Ala Ala Arg Leu Ala Thr Phe Lys Asp Trp Pro Arg

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Arg Met Arg Gln Lys Pro Glu Glu Leu Ala Glu Ala Gly Phe Phe Tyr			
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Thr Gly Gln Gly Asp Lys Thr Lys Cys Phe Tyr Cys Asp Gly Gly Leu			
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Lys Asp Trp Glu Ser Asp Asp Val Pro Trp Glu Gln His Ala Arg Trp			
115		120	125
Phe Asp Arg Cys Ala Tyr Val Leu Cys Lys Ile Cys Tyr Ser Glu Glu			
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Arg Asn Val Cys Phe Val Pro Cys Gly His Val Val Ala Cys Ala Lys			
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Cys Ala Leu Ser Thr Asp Lys Cys Pro Met Cys Arg			
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<210> 9
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 <212> PRT
 <213> Spodoptera frugiperda

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Asp Glu Ala Arg Cys Ala Phe Cys Lys Val Glu Ile Met Arg Trp Val			
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Glu Gly Asp Asp Pro Ala Lys Asp His Gln Arg Trp Ala Pro Gln Cys			
50		55	60
Pro Phe Val Glu Ala Ala Arg Leu Arg Ser Phe Lys Asp Trp Pro Arg			
65		70	75
80			
Cys Met Arg Gln Lys Pro Glu Glu Leu Ala Glu Ala Gly Phe Phe Tyr			
85		90	95
Thr Gly Gln Gly Asp Lys Thr Lys Cys Phe Tyr Cys Asp Gly Gly Leu			
100		105	110
Lys Asp Trp Glu Asn His Asp Val Pro Trp Glu Gln His Ala Arg Trp			
115		120	125
Phe Asp Arg Cys Ala Tyr Val Leu Cys Lys Ile Cys Tyr Ala Glu Glu			
130		135	140
Arg Asn Val Cys Phe Val Pro Cys Gly His Val Val Ala Cys Ala Lys			
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Cys Ala Leu Ala Ala Asp Lys Cys Pro Met Cys Arg			
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<210> 10
<211> 172
<212> PRT
<213> Trichoplusia ni

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20 25 30

Asp Glu Val Arg Cys Ala Phe Cys Lys Val Glu Ile Met Arg Trp Val
35 40 45

Glu Gly Asp Asp Pro Ala Lys Asp His Gln Arg Trp Ala Pro Gln Cys
50 55 60

Pro Phe Val Glu Ala Ala Arg Leu Arg Ser Phe Lys Asp Trp Pro Arg
65 70 75 80

Cys Met Arg Gln Lys Pro Glu Glu Leu Ala Glu Ala Gly Phe Phe Tyr
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Thr Gly Gln Gly Asp Lys Thr Lys Cys Phe Tyr Cys Asp Gly Gly Leu
100 105 110

Lys Asp Trp Glu Asn Asp Asp Val Pro Trp Glu Gln His Ala Arg Trp
115 120 125

Phe Asp Arg Cys Ala Tyr Val Leu Cys Lys Ile Cys Phe Ala Glu Glu
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Arg Asn Val Cys Phe Val Pro Cys Gly His Val Val Ala Cys Ala Lys
145 150 155 160

Cys Ala Leu Ala Ala Asp Lys Cys Pro Met Cys Arg
165 170

<210> 11
<211> 172
<212> PRT
<213> Cydia pomonella granulovirus

<400> 11
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20 25 30

Asp Glu Val Arg Cys Ala Phe Cys Lys Val Glu Ile Met Arg Trp Lys
35 40 45

Glu Gly Glu Asp Pro Ala Ala Asp His Lys Lys Trp Ala Pro Gln Cys
50 55 60

Pro Phe Val Glu Ala Ala Arg Val Lys Ser Phe His Asn Trp Pro Arg
65 70 75 80

Cys Met Lys Gln Arg Pro Glu Gln Met Ala Asp Ala Gly Phe Phe Tyr
85 90 95

Thr Gly Tyr Gly Asp Asn Thr Lys Cys Phe Tyr Cys Asp Gly Gly Leu
100 105 110

Lys Asp Trp Glu Pro Glu Asp Val Pro Trp Glu Gln His Val Arg Trp
115 120 125

Phe Asp Arg Cys Ala Tyr Val Leu Cys Lys Ile Cys Tyr Val Glu Glu
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Cys Ile Val Cys Phe Val Pro Cys Gly His Val Val Ala Cys Ala Lys
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Cys Ala Leu Ser Val Asp Lys Cys Pro Met Cys Arg
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<210> 12

<211> 172

<212> PRT

<213> Orgyia pseudotsugata

<400> 12

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20 25 30

Asp Glu Val Arg Cys Ala Phe Cys Lys Val Glu Ile Thr Asn Trp Val
35 40 45

Arg Gly Asp Asp Pro Glu Thr Asp His Lys Arg Trp Ala Pro Gln Cys
50 55 60

Pro Phe Val Glu Ala Ala Arg Leu Arg Thr Phe Ala Glu Trp Pro Arg
65 70 75 80

Gly Leu Lys Gln Arg Pro Glu Glu Leu Ala Glu Ala Gly Phe Phe Tyr
85 90 95

Thr Gly Gln Gly Asp Lys Thr Arg Cys Phe Cys Cys Asp Gly Gly Leu
100 105 110

Lys Asp Trp Glu Pro Asp Asp Ala Pro Trp Gln Gln His Ala Arg Trp
115 120 125

Tyr Asp Arg Cys Glu Tyr Val Leu Cys Lys Ile Cys Leu Gly Ala Glu
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Lys Thr Val Cys Phe Val Pro Cys Gly His Val Val Ala Cys Gly Lys
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Cys Ala Ala Gly Val Thr Thr Cys Pro Val Cys Arg
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<210> 13

<211> 172

<212> PRT

<213> Drosophila melanogaster

<400> 13

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Asp Lys Arg Gln Leu Ala Gln Thr Gly Met Tyr Phe Thr His Ala Gly
20 25 30

Asp Lys Val Lys Cys Phe Phe Cys Gly Val Glu Ile Gly Cys Trp Glu
35 40 45

Gln Glu Asp Gln Pro Val Pro Glu His Gln Arg Trp Ser Pro Asn Cys
50 55 60

Pro Leu Leu Glu Thr Ala Arg Leu Arg Thr Phe Glu Ala Trp Pro Arg
65 70 75 80

Asn Leu Lys Gln Lys Pro His Gln Leu Ala Glu Ala Gly Phe Phe Tyr
85 90 95

Thr Gly Val Gly Asp Arg Val Arg Cys Phe Ser Cys Gly Gly Leu
100 105 110

Met Asp Trp Asn Asp Asn Asp Glu Pro Trp Glu Gln His Ala Leu Trp
115 120 125

Leu Ser Gln Cys Arg Phe Val Leu Cys Lys Ile Cys Tyr Gly Ala Glu
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Tyr Asn Thr Ala Phe Leu Pro Cys Gly His Val Val Ala Cys Ala Lys
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Cys Ala Ser Ser Val Thr Lys Cys Pro Leu Cys Arg
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<210> 14

<211> 68

<212> PRT

<213> Bombyx mori

<400> 14

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20 25 30

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35 40 45

Glu Ser Asp Asp Val Pro Trp Glu Gln His Ala Arg Trp Phe Asp Arg
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Cys Ala Tyr Val
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<210> 15

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<213> Spodoptera frugiperda

<400> 15
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20 25 30

Gly Asp Lys Thr Lys Cys Phe Tyr Cys Asp Gly Gly Leu Lys Asp Trp
35 40 45

Glu Asn His Asp Val Pro Trp Glu Gln His Ala Arg Trp Phe Asp Arg
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Cys Ala Tyr Val
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<210> 16
<211> 68
<212> PRT
<213> Trichoplusia ni

<400> 16
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20 25 30

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35 40 45

Glu Asn Asp Asp Val Pro Trp Glu Gln His Ala Arg Trp Phe Asp Arg
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Cys Ala Tyr Val
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<210> 17
<211> 68
<212> PRT
<213> Cydia pomonella granulovirus

<400> 17
Glu Ala Ala Arg Val Lys Ser Phe His Asn Trp Pro Arg Cys Met Lys
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20 25 30

Gly Asp Asn Thr Lys Cys Phe Tyr Cys Asp Gly Gly Leu Lys Asp Trp
35 40 45

Glu Pro Glu Asp Val Pro Trp Glu Gln His Val Arg Trp Phe Asp Arg
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Cys Ala Tyr Val
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<210> 18
<211> 68
<212> PRT
<213> Orgyia pseudotsugata

<400> 18
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1 5 10 15

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20 25 30

Gly Asp Lys Thr Arg Cys Phe Cys Cys Asp Gly Gly Leu Lys Asp Trp
35 40 45

Glu Pro Asp Asp Ala Pro Trp Gln Gln His Ala Arg Trp Tyr Asp Arg
50 55 60

Cys Glu Tyr Val
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<210> 19
<211> 68
<212> PRT
<213> Drosophila melanogaster

<400> 19
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1 5 10 15

Gln Lys Pro His Gln Leu Ala Glu Ala Gly Phe Phe Tyr Thr Gly Val
20 25 30

Gly Asp Arg Val Arg Cys Phe Ser Cys Gly Gly Leu Met Asp Trp
35 40 45

Asn Asp Asn Asp Glu Pro Trp Glu Gln His Ala Leu Trp Leu Ser Gln
50 55 60

Cys Arg Phe Val
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<210> 20
<211> 37
<212> PRT
<213> Bombyx mori

<400> 20
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20 25 30

Cys Pro Met Cys Arg

<210> 21
<211> 37
<212> PRT
<213> Spodoptera frugiperda

<400> 21
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Cys Gly His Val Val Ala Cys Ala Lys Cys Ala Leu Ala Ala Asp Lys
20 25 30
Cys Pro Met Cys Arg
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<210> 22
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<212> PRT
<213> Trichoplusia ni

<400> 22
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Cys Pro Met Cys Arg
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<213> Cydia pomonella granulovirus

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20 25 30
Cys Pro Met Cys Arg
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<210> 24
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<213> Orgyia pseudotsugata

<400> 24
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Cys Gly His Val Val Ala Cys Gly Lys Cys Ala Ala Gly Val Thr Thr

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25

30

Cys Pro Val Cys Arg
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<210> 25
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<213> Drosophila melanogaster

<400> 25
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20 25 30

Cys Pro Leu Cys Arg
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<210> 26
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<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic fluorogenic
caspase-9 substrate

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<210> 27
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<213> Artificial Sequence

<220>
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caspase-3 substrate

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